

IN THE CLAIMS:

Please amend the Claims as follows:

WHAT IS CLAIMED IS:

1. (Amended) A method of testing wire-bond connections between a bonding wire and a separate surface, the connections being produced by a bonding head with a bonding tool and a wire clamp associated with the bonding tool under pressure and the action of at least one of ultrasound and heat, the method comprising:

lifting the bonding head or the bonding tool a first distance away from the bonding site after the bonded connection has been created;

fixedly gripping the bonding wire with the wire clamp; and

raising the bonding head or the wire clamp with bonding wire gripped therein for a second distance during which process the tensile force acting on the bonding wire is detected.

2. (Amended) The method of Claim 1, wherein raising the bonding head or the wire clamp for the second distance is calculated, in dependence on the structural features, so that a predetermined tensile force is exerted as a result of the raising, and an intact state of the bonded connection is detected during raising.

3. (Amended) The method of Claim 2, wherein the intactness of the bonded connection is determined by observing the time course of the tensile force acting on the wire clamp during the raising.

4. (Amended) A wire bonder in which there is integrated into a bonding head a testing arrangement for wire-bond connections between a bonding wire and a separate surface.

5. (Amended) The wire bonder of Claim 4, wherein the bonding head comprises a tool holder or transducer holder to hold a bonding tool and a wire-clamp holder to hold a wire clamp for gripping the bonding wire, as well as a drive mechanism for vertical displacement of the bonding head or tool holder and wire-clamp holder, and wherein a program control system to control a predetermined movement sequence of the bonding head or tool holder and the wire-

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clamp holder is associated with the drive mechanism in order to carry out a measurement of tensile force at the bonding wire, and wherein a force measuring device is associated with the wire-clamp holder in order to measure a tensile force acting on a bonded connection to the bonding wire that has been produced.

6. (Amended) The wire bonder of Claim 5, wherein the wire-clamp holder is mounted on the bonding head so that it can be elastically deflected against the action of a pretensioning element and a force-measurement element is associated with the holder.

7. (Amended) The wire bonder of Claim 6, wherein the wire-clamp holder comprises a weakened preferential bending section or leaf-spring section, which ensures the elastic deflectability and in which the force-measurement element is located.

8. (Amended) The wire bonder of Claim 5, wherein the program control system induces the bonding head to lift a first distance and induces the wire clamp to grip the bonding wire and then induces the bonding head or the wire clamp to raise a second distance while the force measuring device measures the tensile force acting on the bonding wire.

Please, add the following new Claims:

9. (New) The wire bonder of Claim 4, wherein the separate surface is a bonding pad.

10. (New) The wire bonder of Claim 5, wherein the wire-clamp holder is mounted on the bonding head so that it can be linearly displaced.

11. (New) The wire bonder of Claim 6, wherein the force-measurement element comprises a strain gauge.

12. (New) A method of testing wire-bonded connections between a bonding wire and a separate surface having a bonding site, the method comprising:

lifting a bonding tool a first distance away from the bonding site after the bonded connection has been created;

fixedly gripping the bonding wire with a wire clamp; and
raising the bonding tool for a second distance during which process the tensile force acting on the bonding wire is detected.

13. (New) The method of Claim 12, wherein the method further comprises producing the wire connections with a bonding head, a bonding tool, and a wire clamp associated with the bonding tool.

14. (New) The method of Claim 13, wherein producing the wire-bond connections includes producing the wire connections under pressure, ultrasound, or heat.

15. (New) The method of Claim 12, wherein lifting a bonding tool comprises lifting a bonding head.

16. (New) The method of Claim 12, wherein raising the bonding tool comprises raising the wire clamp with bonding wire gripped therein.

17. (New) The method of Claim 12, wherein lifting the bonding tool a first distance includes lifting the bonding tool a short distance.

18. (New) The method of Claim 12, wherein raising the bonding head or the wire clamp for the second distance is calculated in a manner so as to be dependent on the structural features so that a predetermined tensile force is exerted as a result of the raising.

19. (New) The method of Claim 18, wherein an intact state of the bonded connection is detected during raising.

20. (New) The method of Claim 19, wherein the intactness of the bonded connection is determined by observing the time course of the tensile force acting on the wire clamp during the raising.

21. (New) A wire bonder device comprising a bonding head with an integrated testing arrangement for wire-bond connections between a bonding wire and a surface.

22. (New) The device of Claim 21, wherein the bonding head comprises a holding tool to hold a bonding tool and a wire-clamp holder to hold a wire clamp for gripping a bonding wire.

23. (New) The device of Claim 22, wherein the holding tool comprises a transducer holder.

24. (New) The device of Claim 22, wherein the bonding head further comprises a drive mechanism for the vertical displacement of the bonding head and wire-clamp holder.

25. (New) The device of Claim 24, wherein the bonding head further comprises a program control system to control a predetermined movement sequence of the bonding head and wire-clamp holder.

26. (New) The device of Claim 25, wherein the program control system is associated with the drive mechanism and carries out a measurement of tensile force at the bonding wire, and a force measuring device is associated with the wire-clamp holder in order to measure a tensile force acting on a bonded connection to the bonding wire that has been produced.

27. (New) The device of Claim 26, wherein the wire-clamp holder is mounted on the bonding head so that it can be elastically deflected against the action of a pre-tensioning element, and a force-measurement element or a strain gauge is associated with the holder.

28. (New) The device of Claim 27, wherein the wire-clamp holder comprises a weakened preferential bending section or leaf-spring section, which ensures the elastic deflectability and in which the strain gauge is located.

29. (New) The device of Claim 21, wherein the surface includes a separate surface.

30. (New) The device of Claim 29, wherein the separate surface includes a bonding pad.